

SMIRNOV, I. P.

Rivers

Measurements of depths based on the hydrometric level of mountain rivers and calculation of stream deformations in evaluation of flow, Met. i gidrol., No. 5, 1949.

Monthly List of Russian Accessions, Library of Congress, October, 1952. UNCLASSIFIED.

~~SMIRNOV, I. P.~~  
SMIRNOV, I.P.

Studying the basic elements of flood streams by their remnants.  
Trudy Kaz. NIGMI no.9:32-42 '57. (MIRA 11:1)  
(Floods) (Stream measurements)

KAVETSKIY, S.P.; SMIRNOV, I.P.

Studying flood streams not caused by cloudbursts. Trudy Kaz. NIGMI  
no.9:43-52 '57. (MIRA 11:1)

(Floods) (Stream measurements)

SMIRNOV, I. P.

Roughness coefficients of erosion-active mud flows. Trudy  
KazNIGMI 23.12:73-80 '59. (MIRA 13:5)  
(Floods)

SOV/123-59-16-64097

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 16, p 73 (USSR)

AUTHORS: Polovnikov, V.V., Smirnov, I.P.

TITLE: Combined Hot and Cold Rolling of Gears of Medium Module

PERIODICAL: Sb. Prom. primeneniye tokov vysokoy chastoty, Riga, 1957, 31-38

ABSTRACT: The kinematic scheme of an industrial rolling mill and the technology of the hot and cold rolling of gears, as it is applied at the Khar'kov Tractor Plant, are described. In order to reduce the thermal buckling of the gear the rolling process is divided into two stages: preliminary hot rolling with induction heating of the blank and the final cold rolling. The division of this process permitted to obtain gears of medium module of the 2nd and 3rd class of accuracy by rolling without their subsequent milling and shaving. The temperature of induction heating amounted to 1,200°C with a maximum heating intensity and a minimum of heating depth. The specific power consumed was 1.5 kw/cm<sup>2</sup>.

Zh.V.T.

Card 1/1

KOLOMENSKIY, A.A., glav. red.; KUZNETSOV, A.B., red.; LEBEDEV,  
A.N., red.; ALYAB'YEV, A.F., red.; MURADOVA, A.A., red.;  
SMIRNOV, I.P., red.

Transactions of the International Conference on High  
Energy Accelerators. Trudy Mezhdunarodnoi konferentsii  
po uskoriteliam. Pod red. A.A.Kolomenskogo, A.B.Kuznetsova,  
A.N.Lebedeva. Moskva, Atomizdat, 1964. 1091 p. [In Rus-  
sian and English] \_\_\_\_ List of participants of the International  
Conference on High Energy Accelerators. Spisok uchastnikov Mezhdunarodnoi konferentsii po uskoriteliam (Dubna, 21-27 avgust 1963 g.). Moskva, Atomizdat, 1964. 13 p. (MIRA 17:9)

1. International Conference on High Energy Accelerators. Dubna, 1963. 2. Fizicheskiy institut im. P.N.Lebedeva AN SSSR, Moskva (for Kolomenskiy, Lebedev).

ALEKSEENKO, Yu.N., kand. tekhn. nauk, otv. red.; BELIKGAUT, V.R.,  
red.; VINOGRADOVA, O.K., red.; SMIRNOV, I.P., red.

[Study of the use of organic coolant-moderators in power  
reactors] Issledovaniia po primeneniiu organicheskikh  
teplonositelei - zamedlitatelei v energeticheskikh reakto-  
rakh. Moskva, Atomizdat, 1964. 243 p. (MIRA 18:1)

1. Moscow. Institut atomnoy energii im. I.V.Kurchatova.

NEVSKIY, B.V.; SMIRNOV, I.P.; PIRKOVSKIY, S.A.

Effect of the mass transfer intensity on certain indicators  
in the process of autoclave leaching of uranium ore. Atom.  
energ. 17 no.3:201-205 S '64. (MIRA 17:9)



SMIRNOV, I. P.

Evaluation of the pepsin-forming function of the stomach by  
determination of pepsin in the gastric contents and uropepsin  
in the urine in some stomach diseases. Terap. arkh. 33 no.5:63-65  
My '61. (MIRA 14:12)

1. Iz kafedry terapii dlya usovershenstvovaniya vrachey No. 2 (nach. -  
prof. G. A. Smagin) Voenno-meditsinskoy ordena Lenina akademii imeni  
S. M. Kirova.

(PEPSIN) (UROPEPSIN) (STOMACH--DISEASES)  
(URINE--ANALYSIS AND PATHOLOGY)

SMIRNOV, I.P. (Leningrad)

Uropepsin excretion in some stomach diseases verified by gastroscopy. Terap.arkh. 33 no.11:61-64 '61. (MIRA 15:5)

1. Iz kafedry terapii dlya usovershenstvovaniya vrachey No.2  
(nach. - prof. G.A. Smagin) Voenno-meditsinskoy ordena Lenina  
imeni S.M. Kirova.  
(UROPEPSIN) (STOMACH--DISEASES) (GASTROSCOPY)

SMIRNOV, I.P.

Dependence of uropepsin excretion on pepsin excretion in the stomach.  
Fiziol. zhur. 48 no.1:82-85 Ja '62. (MIRA 15:2)

1. Kafedra terapii dlya usovershenstvovaniya vrachey No.2 Voenno-  
meditsinskoy akademii imeni S.M.Kirova, Leningrad.  
(PEPSIN) (UROPEPSIN)

SMIRNOV, I.P. (Leningrad)

Side effects of ACTH and cortisone on gastric secretion. Klin.  
med. no.1:114-116 '62. (MIRA 15:1)

1. Iz kafedry terapii dlya usovershenstvovaniya vrachey No.2  
(nachal'nik - prof. G.A. Smagin) Voenno-meditsinskoy ordena  
Lenina akademii imeni S.M. Kirova.  
(GASTRIC JUICE) (ACTH) (CORTISONE)

SMIRNOV, I.P. (Leningrad)

Evaluation of the indications of uropepsin elimination in normal persons. Vrach. delo no.2:139-140 F '62. (MIRA 15:3)

1. Kafedra terapii (nachal'nik - prof., general-mayor meditsinskoy sluzhby G.A. Smagin) Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

(UROPEPSIN)

(URINE ANALYSIS AND PATHOLOGY)

SMIRNOV, I.P.

Comparative evaluation of the determination of pepsin activity by the methods of Mett and of Ege and Menck-Thygesen modified by N.P.Piatnitskii.  
Lab. delo 8 no.3:6-8 Mr '62. (MIRA 15:5)

1. Kafedra terapii dlya usovershenstvovaniya vrachey No.2 (nachal'nik  
prof. G.A.Smagin) Voenno-meditsinskoy ordena Lenina akademii imeni  
S.M.Kirova, Leningrad.  
(PEPSIN) (GASTRIC JUICE)

SMIRNOV, I.P. (Leningrad)

Dercum's syndrome. Sov. med. 28 no.3:108-110 Mr '65.

(MIRA 18:10)

SMIRNOV, I.P.

[Production of medical instruments and equipment in the U.S.S.R.]  
Proizvodstvo meditsinskogo instrumentariia i o'borudovaniia v  
SSSR. Moskva, Izd-vo Akademii nauk SSSR, 1954. 22 p. (MLRA 8:11)  
(MEDICAL INSTRUMENTS AND APPRATUS)



SMIRNOV, I.P.

Modern medical equipment in the service of Soviet public health.  
Med.prom. 11 no.10:32-35 0 '57. (MIRA 11:1)  
(MEDICAL INSTRUMENTS AND APPARATUS)

SMIRNOV, I.P.

Specialization in the All-Union Scientific Research Institute of  
Medical Instruments and Equipment. Med.prom. 14 no.4:3-6 Ap '60.  
(MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskogo  
instrumentariya i oborudovaniya.

(MEDICAL INSTRUMENTS AND APPARATUS)

GAYSINSKIY, B. Ye., doktor med. nauk; ~~SMIRNOV, I. P.~~, kand. tekhn. nauk

Technology in new preventive medicine institutions. Zdrav. Ros.  
Feder. 6 no.8:21-22 Ag '62. (MIRA 15:7)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta meditsinskikh instrumentov i oborudovaniya (dir. I. P. Smirnov).

(MEDICINE, PREVENTIVE)

SMIRNOV, I.P., kand. tekhn.nauk, otv. red.; PEKARSKIY, M.D.,  
kand. tekhn. nauk, zam. otv. red.; BOLDYREV, B.V.,  
red.; VOLODIN, Ye.A., red.; GAYSINSKIY, B.Ye., red.;  
DANIL'CHENKO, Ye.P., red.; KABATOV, Yu.F., red.;  
KALANTAROV, K.D., red.; MISHIN, L.N., red.; ORSKIY, I.N.,  
red.; FEDURKIN, V.V., red.; TSEPELEV, Yu.A., red.

[Materials of the scientific session devoted to the 25th  
anniversary of the All-Union Scientific Research Insti-  
tute for Medical Instruments and Equipment] Materialy  
nauchnoi sessii, posviashchennoi 25-letiiu VNIIMIO. Mo-  
skva, 1962. 65 p. (MIRA 17:2)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut  
meditsinskogo instrumentariya i oborudovaniya. 2. Zame-  
stitel' direktora Vsesoyuznogo nauchno-issledovatel'skogo  
instituta meditsinskogo instrumentariya i oborudovaniya  
(for Pekarskiy). 2. Direktor Vsesoyuznogo nauchno-  
issledovatel'skogo instituta meditsinskogo instrumentariya  
i oborudovaniya (for Smirnov).

SMIRNOV, I. S.

21 6  
✓ 11576\* (Russian.) Energy of Ionization by Electrons in Germanium Crystals. *Energia ionizatsii elektronami v kristallakh germaniya*. V. S. Vavilov, I. S. Smirnov, and V. M. Patskevich. *Doklady Akademii Nauk SSSR*, v. 112, Feb. 21, 1957, p. 1020-1022.

The loss of energy by fast particles passing through crystals is related to ionization. The average energy loss for the formation of one pair of carriers depends on the type of excitation.

21  
for ESS arch

SMIRNOV, I. S. and SHEVTSOV, V. N.

"Henrich Osipovich Graftio," State Power Publishing House, Moscow, 1955  
(64 pages)

This pamphlet is a concise biography of the Soviet hydro-electric station engineer and builder. It contains accounts of the building of several Soviet hydro-electric stations together with photographs and drawings.

SMIRNOV, I.S.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 26 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Matsepuro, M.Ye.	"Local Power Resources of	Department of Physicomathemat-
Sazonov, N.A.	the Belorussian SSR and a	ical and Technical Sciences,
Timchuk, I.M.	Plan for Their Utilization	Academy of Sciences
Tyulpanov, A.I.	for the Wide Electri-	Belorussian SSR
Kandybovich, A.S.	fication of Agriculture"	
Krivodubskiy, I.P.		
Pekelis, G.N.		
<u>Smirnov, I.S.</u>		

SO: W-30504, 7 July 1954

SMIRNOV, I. S.

"Method of Delivery without Flexion of the Head and Avoiding Rupture of the Perineum,"  
Akusher.i Ginkol., No. 2, 1949. Chief Physician, Armavir City Maternity Home, -c1949-.



SMIRNOV, I. S.

Feeding and Feeding Stuffs

Hack work instead of a textbook ("Feed production on collective farms of Siberia."  
Z. O. Krasikov, A. G. Kalmykov. Reviewed by I. S. Smirnov)., Korm. baza, 3, no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1952 ~~1953~~, Uncl.

SMIRNOV, I. S.

Berinevich, V. A.

Valuable aid in calculating dry roughage ("Determining weight of dry roughage in piles and stacks." V. A. Berinevich. Reviewed by I. S. Smirnov). Kerm.baza 3 No. 5 1952

9. MONTHLY LIST OF RUSSIAN ACCESSIONS, Library of Congress, September 1952. Uncl.

1. SMIRNOV, I. S.
2. USSR (600)
4. Feeding and Feeding Stuffs
7. "Problems in the economics and organization of the feed supply on collective farms."  
Reviewed by I. S. Smirnov. Sov. zootekh. 7 no. 12, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

MOVSIANTS, A. P., SMIRNOV, I. S.

Feeding and Feeding Stuffs

Build up a larger feed supply for communal animal husbandry. Sots. zhiv, 14 no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress,

1951. Unclassified.

BORINEVICH, Vladimir Antonovich,; SMIRNOV, I.S., red.; MAKAROVA, O.K., red.;  
KAPRALOVA, A.A., tekhn. red.

[Calculating the weight of ensilage in silo installations and in  
piles] Opredelenie vesa silosovannogo korma v silosnykh sooruzheniakh  
i burtakh. Izd. 2., dop. i perer. Moskva, Gos. stat. izd-vo, 1957.  
115 p. (MIRA 11:12)

(Ensilage)

✓  
FPTR 0273/67

1110 02267

UDC: 614.2/615.471:[519.24/681.14

ic Research Institute of Medical Instru-

nd Computer Equipment in Public Health

ost' SSSR, No 12, Dec 66, pp 10-16

uction devoted to the possible uses of  
equipment in medicine and public health,  
tial with the example of using mathema-  
e the optimum network of medical estab-  
d to select a solution in developing  
ests both of these subjects very generally  
case an approximate method for calcula-  
ital as a function of bed cost, on the  
of delays in treatment because of hos-  
d case, he discusses the use of mathe-  
heart pacemakers with feedback that  
y as a function of load (respiration).  
s the new science of medical systems

Development of the oxygen-gasoline welding. 1. S. Smirnov. *Avtoennoe Delo* (U. S. S. R.) 5, No. 7, 28 p. (1934).—The O-gasoline welding is superior to the O-C<sub>2</sub>H<sub>4</sub> process since it produces a weld of higher quality and is more economical. I. Jacovlev

9

CA

ASB 35.4 DETAIL LITERATURE CLASSIFICATION

CA

Consumption of oxygen and gasoline in cutting with a gasoline-oxygen flame. I. S. Smirnov, *Acetogenoe Delo* (U. S. S. R.) 6, No. 5, 23-4 (1935); Cf. C. A. 29, 7929.  
The consumption of gases depends on the thickness of the material, the O pressure, its purity and the quality of gasoline. I. Jacovlev

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>Technical Standardization and Costs of Gas Welding of Copper and Aluminium Sections. J. S. Sviridov (<i>Autogenous Welding (Autogenous Practice)</i>, 1965, (12), 24-25). — [In Russian.] A study of causes, with numerical data, affecting expenditure of time and materials. — N. A.</p>																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>REGIONAL LITERATURE</p>										<p>REGIONAL LITERATURE</p>									

22b-22. Standardization of Oxygen-Cutting Procedures Using Gasoline, Kerosene, and Acetylene. (In Russian) I. S. Smirnov. *Avtopornoie Delo* (Welding), Oct. 1947, p. 22-23.

Standard times for cutting various sizes of different shapes are tabulated for the different fuels.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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1ST AND 2ND ORDERS

10D AND 10TH ORDER

PROCESSES AND PROPERTIES INDEX

5

shared with those in index in *Engineering and Technology*.—T. S.  
**Normalization of Oxy-Acetylene Welding Work.** I. S.  
 Smirnov. (Avtogenesis Delo, 1948, No. 5, pp. 28-31). [In  
 Russian]. Norms for various oxy-acetylene welding opera-  
 tions are given, based on time and motion studies.—S. K.

17

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

DENISOV, Yu.A., kand.tekhn.nauk; SMIRNOV, I.S., inzh.

Welding innovator's day in Kurgan. Svar. proizv. no.2:46 F '63.  
(MIRA 16:2)

(Kurgan--Welding--Technological innovations)

VOLCHEK, Ya.L., inzh. (Rostov-na-Donu); SMIRNOV, I.T., inzh. (Rostov-na-Donu)

Planning of operations on railroads under the new conditions.  
Zhel. dor. transp. 45 no.11:60-64 N '63. (MIRA 16:12)

1. Nachal'nik sluzhby dvizheniya Severo-Kavkazskoy dorogi (for Volchek). 2. Zamestitel' nachal'nika operativno-rasporyaditel'nogo otdela sluzhby dvizheniya Severo-Kavkazskoy dorogi (for Smirnov).

S. MIRNOV, I. V.

PH ☒ Correction tables for calculating thermodynamic quantities by spectral data at high temperatures. I. V. Smirnov and A. V. Frost. *Uchenye Zapiski Alskovskogo gosudarst. Univ.* 164, 146-51 (1953); *Referat. Zhur. Fiz.* 1955, No. 2535.—A calcn. of vibrational components of basic thermodynamic quantities of bivalent mol. in the vapor state is made by quantum statistical methods. M. K.

Smirnov ①

SKLYARENKO, S.I.; SMIRNOV, I.V.; BELYAYEVA, L.B.; MALYSHEVA, Ye.A. (Moscow)

Microviscosimeter. Zhur. fiz. khim. 34 no.4:921-924 Ap '60.  
(MIRA 14:5)

(Viscosimeter)

S/076/60/034/05/33/038  
B010/B003

AUTHORS: Sklyarenko, S. I., Smirnov, I. V., Belyayeva, L. B.,  
Malysheva, Ye. A.

TITLE: A Simple Apparatus for Establishing Pressures of Preset  
Values up to 200 Atmospheres

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 5,  
pp. 1136-1137

TEXT: A simple apparatus for establishing pressures up to 200 atm in small sealed vessels is described. The device (Fig.) is a hermetically sealed steel cylinder with a screwed-on cover and thermometer. The bottom of the cylinder ends in a capillary tube which is introduced into the vessel in which the pressure is to be established. The cylinder is filled with water and put in an oven. The vapor pressure of the water presses it through the capillary tube and produces the required pressure in the vessel. If the pressing-in of the water into the vessel is to be avoided, an intermediate vessel filled with mercury (or another liquid)

Card 1/2



S/217/63/008/001/001/002

AUTHOR: Smirnov, I. V.

TITLE: The theoretical basis of cultivation of one-celled algae

PERIODICAL: Biofizika, v. 8, no. 1, 1963, 90-100

TEXT: The purpose of this article was to justify a mathematical approach to the principle of cultivating chlorella which would permit theoretical evaluation of productivity of culture with different methods of culturing, depending on basic biological and design factors. Basic assumptions were: mineral components and carbon dioxide in suspension remained sufficient to maintain natural growth, the light on the suspension was constant, the density of the suspension was constant throughout the culturing cell, and respiration of the cells did not depend on the light and was proportional to the mass of biological material. As the processes of growth of the biological mass was accompanied by respiration (loss of organic material and absorption of oxygen), the total change in the biological mass with time was

$$dG/dt = \gamma_{\lambda p} \cdot S \cdot I_{\lambda 0} - \gamma_{\lambda p} \cdot S \cdot I_{\lambda 0} \cdot e^{-K_{\lambda}(G/V)d_0} - \gamma_g G \quad (4)$$

where G is the quantity of biological material, S the surface of the suspension,

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S/217/63/008/001/001/002

The theoretical basis of cultivation...

$I_{\lambda 0}$  the spectral intensity of the incident light flux with reflection taken into account,  $K_{\lambda}$  the spectral absorption coefficient of the suspension,  $d_0$  the initial thickness of the layer of suspension,  $\gamma_{\lambda p}$  the spectral coefficient of proportionality between the amount of the absorbed radiant energy and the increment to the biological material, and  $\gamma_g$  the proportionality coefficient of the amount of biological material and the intensity of respiration. When the density of the suspension is high enough (at 200 million per  $\text{cm}^{-3}$ , equation (4) can be simplified to

$$dG/dt + \gamma_g G = \gamma_{\lambda p} \cdot S \cdot I_{\lambda 0} \quad (7)$$

The solution of equation (7) for monochromatic light will be of the form

$$G(t) = \gamma_{\lambda p} \cdot S \cdot I_{\lambda 0} / \gamma_g - (\gamma_{\lambda p} \cdot S \cdot I_{\lambda 0} / \gamma_g - G_0) \cdot e^{-\gamma_g t} \quad (10)$$

It is of practical interest to know the coordinates of the curve of the growth of  $G(t)$  where the increment in the biological mass is maximum for given irradiation of chlorella. Since  $V = S \cdot d$ ,

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S/217/63/008/001/001/002

The theoretical basis of cultivation ....

$$G_{\max} = S/K_{\lambda} \cdot \ln \gamma_{\lambda p} \cdot I_{\lambda 0} \cdot K_{\lambda}/\gamma_g \quad (13)$$

Setting  $G_{\max} = 0$

$$\gamma_{\lambda p} \cdot I_{\lambda 0} \cdot K_{\lambda}/\gamma_g = 1 \quad (14)$$

from which limit values of the coefficients can be found. The following dependence of the volume of the suspension on the density for maximum increment in growth was obtained

$$V = S/C_{v \max} K_{\lambda} (\ln \gamma_{\lambda p} \cdot I_{\lambda 0} \cdot K_{\lambda}/\gamma_g) \quad (16)$$

where  $C_{v \max}$  is the concentration of the biological mass in the suspension.

This mathematical description was tested experimentally with a flat culturing cell lighted on both sides and supplied with carbon dioxide. The experimental curves and theoretical curves for  $G(t)$  agreed well. The conclusions were: 1) This mathematical method agreed quite well with the experimental curve of growth of  $G(t)$  for practical purposes under the given conditions. 2) The chosen coefficients of growth  $\gamma_p$  and respiration  $\gamma_g$  permit one to calculate the productivity under

Card 3 of 4

S/217/63/008/001/001/002

The theoretical basis ....

these conditions for different biological masses according to changes in parameters such as the intensity of irradiation, thickness of the suspension, stirring the suspension, etc. 3) Small culturing cells require high densities of suspensions, thin suspension layers, and chlorella strains with high correlation between intensity of photosynthesis and intensity of light flux. Seven figures and 2 tables were given.

Card 4 of 4

APATOVSKIY, B.Ye., inzh.; SMIRNOV, I.V., slesar'

Automatic device for manufacturing paper cable sleeves. Vest.  
sviazi 23 no.12:10-11 D '63. (MIRA 17:2)

SMIRNOV, I.V., kand. med. nauk

Use of lidase for reducing postoperative edema in operations  
on the eyelids. Vestn. oftal. 76 no.4:38-40 J1-Ag'63  
(MIRA 17:1)

1. Filial Nauchno-issledovatel'skogo instituta glaznykh bo-  
lezney imeni Gel'mgol'tsa (dir. F.I.Purshev), Cheboksary.

DEIRNOV, I.V.; KOLOTOV, K.G.

Automatic machine for manufacturing paper sleeves for cables.  
Biul. tekhn.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekhn.  
inform. 17 no.4:43-44 Ap '64. (MIRA 17:6)

ACCESSION NR: AT4037713

S/2865/64/003/000/0432/0448

AUTHOR: Smirnov, I. V.

TITLE: Mathematical analysis of mass cultivation of chlorella in assymmetrically shaped biological cultivators

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy\* kosmicheskoy biologii, v. 3, 1964, 432-448

TOPIC TAGS: air regeneration, algae cultivation, algae, Chlorella, closed ecological system, manned space flight,

ABSTRACT: A method for quantitative analysis of variations in productivity of a biological cultivator for chlorella caused by a change in its shape from "symmetrical" to "asymmetrical" is presented. As an example of a symmetrical cultivator, one is selected with the shape of a rectangular flat prism. Three differential equations describing the large-scale chlorella-cultivation process in such a cultivator are given for various relations between the radiation-flux intensities before and behind the cultivator. As the first asymmetrical cultivator, one with a step-shaped cross section is discussed. The parameters of the cultiva-

Card 1/3



ACCESSION NR: AT4037713

tion process (increase of cultivator efficiency, the biomass production per liter of suspension, the rate of chlorella growth, etc.) are calculated for both symmetrical and asymmetrical types of cultivators (of the same area and under radiation flux of the same intensity), and results are presented in tables and diagrams. The inferiority of the asymmetrical type is established, the inevitability of this fact is analytically proven, and it is shown that to each suspension thickness and flux intensity corresponds a certain value of the rate of the maximum chlorella growth. The effect of geometrical cultivator parameters on cultivator efficiency is analyzed. As the second asymmetrical cultivator, one with a triangular cross section is discussed. A comparative analysis of its characteristics and of those of a symmetrical cultivator is carried out, and the results are shown in a diagram. The efficiency of a cultivator of nonsymmetrical cylindrical cross section is analyzed in two cases: a cultivator with a suspension layer uniformly distributed over its surface, and the same cultivator with a certain amount of suspension accumulated at its bottom. The efficiency data of these cultivators are illustrated by a diagram showing the advantages of symmetrical cultivators. The conditions of ensuring the gas exchange for one man by a symmetrical biological cultivator are discussed by analyzing the effect of the flux intensity on the irradiated area, suspension volume, and radiation energy, assuming an oxygen consumption of 550

Card 2/3

ACCESSION NR: AT4037713

liters per day. The calculation data are presented in a diagram. The parameters of a cultivator subjected to high and low flux intensities are quantitatively analyzed as related to its weight and overall dimensions.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: LS, MA

NO REF SOV: 001

OTHER: 000

Card 3/3

SMIRNOV, I. V.: Master Med Sci (diss) -- "Clinical observations of changes in the fundus oculi in hypertension disease and the treatment of its complications by subconjunctival introduction of oxygen". Minsk, 1958. 11 pp (Minsk State Med Inst), 180 copies (KL, No 5, 1959, 157)

SMIRNOV, I.V., kand.med.nauk

Measurements in the fundus oculi. Oft.zhur. 15 no.7:411-413 '60.  
(MIRA 13:11)

1. Iz Slonimskoy rayonnoy bol'nitsy (nauchnyy rukovoditel' -  
zav. kafedroy glaznykh bolezney prof. T.V.Birich Minskogo meditsinskogo  
instituta).

(EYE--BLOOD-VESSELS)

(EYE--EXAMINATION)

SMIRNOV, I.V.

Syndrome of oxygen starvation of the retina in hypertension.  
Sov. med. 24 no. 10:112-113 0 '60. (MIRA 13:12)

1. Iz Slonimskoy rayonnoy bol'nitsy (glavnyy vrach O.P. Viktorova)  
Grodenskoy oblasti.  
(RETINA—BLOOD SUPPLY) (HYPERTENSION)

SMIRNOV, I. V., kand. med. nauk

Case of 2-year areactive retention of an eyelash in the anterior chamber and iris of the eye. Oft. zhur. 17 no. 4:249-250 '62.  
(MIRA 15:7)

1. Iz Cheboksarskogo filiala Nauchno-issledovatel'skogo instituta glaznykh bolezney imeni Gel'mgol'tsa (direktor - kand. med. nauk F. I. Pirshev).

(EYE—FOREIGN BODIES)  
(IRIS(EYE)—FOREIGN BODIES)

SMIRNOV, I.V.

Intracapsular extraction of the crystalline lens with the use  
of  $\alpha$ -chymotrypsin. Uch.zap. GNII glaz.bol. no.8:136-138'63.  
(MIRA 16:9)

1. Filial Gosudarstvennogo nauchno-issledovatel'skogo insti-  
tuta glaznykh bolezney imeni Gel'mgol'tsa v gorode Cheboksary.  
(CRYSTALLINE LENS) (CHYMOTRYPSIN)

MAKLYAYEV, F.L.; SMIRNOV, I.V.; MARKOV, S.M.; LOSHADKIN, N.A.; ANIKIYENKO,  
K.A.

Reactivity of the nitrophenyl esters of phosphoric and phosphinic  
acids. Zhur.ob.khim. 33 no.12:3833-3838 D '63. (MIRA 17:3)



POSTAVNAYA, V. I.; SMIRNOV, I. V.

"Preservation of bull semen by means of spermatozoa reversible inactivation  
by carbonic acid."

report submitted to 5th Intl Cong, Animal Reproduction & Artificial Insemination,  
Trent, Italy, 6-13 Sep 64.

SMIRNOV, I. V.

"Electrical Conductivity of Liquids and Double Liquid Systems." Thesis for degree of Cand. Chemical Sci.  
Sub 5 Apr 49, Military Academy of Chemical Defense  
imeni K. Ye. Voroshilov.

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949.  
From Vechernyaya Moskva, Jan-Dec 1949.

16

A COMBINED APPARATUS FOR THE INVESTIGATION OF THE ELECTRICAL CONDUCTIVITY, VISCOSITY AND DENSITY OF SOLUTIONS. S.I. Sklyarenko and I.V. Smirnov. (Zavodskaya Laboratoriya, 1949, vol. 15, Apr., pp. 481-482). (in Russian). An apparatus is described in which a single sample is used for the determination of the electrical conductivity, viscosity, and density of an electrolyte. The apparatus can be used at temperatures over 100° C. —S.K.

SMIRNOV, I. V.

*phys. chem. 3*

Electrical conductivity, viscosity, and density of aqueous solutions of orthophosphoric acid. S. I. Sklyarenko and I. V. Smirnov. *Zhur. Fiz. Khim.* 25, 24-8 (1951).—D., cond., and viscosity of aq. solns. contg. 0.28 to 87.2 mol. %  $H_3PO_4$  were measured at 25, 35, 42, 50, and 75°. There is a max. in the sp. cond. at 15% (25°), shifting to 20%  $H_3PO_4$  at 75°. Two straight lines intersecting at about 50% are obtained in a plot ( $\log \lambda$ , mol. %),  $\lambda$  being the mol. cond. The viscosity continuously increases with the concn. at all temps. There is a min. in the curve giving the corrected cond. ( $\lambda \times \eta/\eta_{H_2O}$ ) as a function of diln. The relation between the corrected cond. and the concn. (mol. %) is complex. The temp. dependence of  $\lambda$  is linear above 18.17°. The temp. dependence of the relative viscosity is exponential. All data are given in tables. M. B.

*MF*

SMIRNOV, I.V.

USSR/Chemistry - Cadmium

Aug 52

"The Electrical Conductivity, Viscosity, and Density of Solutions of Cadmium Iodide in Methyl Alcohol at Room and Low Temperatures," S. I. Sklyarenko, I. V. Smirnov, and M. G. Zhukova, Power Inst im V. M. Molotov, Moscow

Zhur Fiz Khim, Vol 26, No 8, pp 1125-1130

From an examn of the form of the isotherms and polytherms of elec cond and viscosity, and from observations on the behavior of solns of CdI<sub>2</sub> in MeOH during their storage and evaporation, the following conclusions are drawn: (1) In the system CdI<sub>2</sub>-MeOH, a

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definite compd is formed, CdI<sub>2</sub>·8CH<sub>3</sub>OH. (2) The compd CdI<sub>2</sub>·8CH<sub>3</sub>OH is stable and can be crystallized at temps below 0°.

26377

SMIRNOV, I.V.

Experimental plotting of eddy current densities in a  
conducting sheet. Vest.elektroprom. 27 no.6:52-55 Je '56.  
(MLRA 10:8)

1.Voyenno-vodzdushnaya inzhenernaya Akademiya imeni N.Ye.  
Zhukovskogo.

(Electric currents, Eddy)

ACCESSION NR: AP4024768

S/0080/64/037/003/0568/0574

AUTHOR: Sklyarenko, S. I.; Smirnov, I. V.; Rysev, A. P.

TITLE: Derivation of lithium hydroxide in a solid cathode by electrolysis of a lithium chloride solution in an electrolyzer with a filtering diaphragm

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 3, 1964, 568-574

TOPIC TAGS: Lithium hydroxide, electrolysis, lithium chloride, filtering diaphragm, solid cathode, lithium chloride solution

ABSTRACT: This research was concerned with the process of electrolysis of aqueous solutions of lithium chloride with the use of a horizontal filtering diaphragm. A series of physical chemical properties of the catholyte were also studied. Electrolysis of aqueous solutions of lithium chloride with concentrations from 2.5 mol./liter to 12.51 mol./liter, in an electrolyzer with a filtering diaphragm and a solid cathode indicated that it is possible to obtain saturated and even supersaturated hydroxide solutions with high current efficiency (95-99%), by electrolysis of aqueous solutions of lithium chloride in electrolyzers with a filtering diaphragm in a solid cathode. It is possible to precipitate, in the form of the monohydrate  $\text{LiOH} \cdot \text{H}_2\text{O}$ , up to 50% of that formed during hydroxide

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ACCESSION NR: AP4024768

electrolysis by control of catholyte concentration. The hydroxide which remains in the catholyte after part of it has been precipitated in solid form, can be precipitated in the form of lithium carbonate by means of carbonic acid gas saturation. The chloride solution can be used repeatedly for electrolysis after separation of the carbonate residue and neutralization of the solution with a small amount of hydrochloric acid. It was indicated that the ratios which permit a calculation of current efficiency and chloride concentration in the catholyte, are well confirmed quantitatively during conditions where hydroxide concentrations in the catholyte are less than required for saturation at a given temperature. Orig. art. has: 6 tables, 2 figures.

ASSOCIATION: none

SUBMITTED: 19Dec61

DATE ACQ: 16 Apr64

ENCL: 00

SUB CODE: CH

No. REF. SOV: 004

OTHER: 000

Cord 2/2



ACCESSION NR: AP4024767

8/0080/64/037/003/0557/0567

AUTHOR: Sklyarenko, S. I.; Smirnov, I. V.

TITLE: Diaphragm method of obtaining hydroxides of alkali metals and its applicability for obtaining lithium hydroxide

SOURCE: Zhurnal prikladnoy khimii, v. 37, 1964, 557-567

TOPIC TAGS: Diaphragm method, hydroxide, alkali metal, lithium hydroxide, electrolysis, alkali metal chloride

ABSTRACT: This study is directed to a general theoretical examination of a method of electrolysis of alkali metal chloride solutions using filtering diaphragms and the application of this method to the derivation of lithium hydroxide. In the steady state of electrolysis of saturated lithium chloride solution with the derivation of an unsaturated alkali solution, linear dependence should be maintained between concentration of chloride ( $C_1$ ) and lithium hydroxide ( $C_2$ ) in the catholyte, having the form  $C_1 = 13.54 - 0.515C_2$ . The following linear dependence was established during the steady process of electrolysis between chloride concentration in the anolyte ( $C_a$ ) and alkali concentration in the catholyte:  $C_a \approx 13.54 - 0.13C_2$ . It was found that during electrolysis of unsat-

Card 1/2

ACCESSION NR: AP4024767

urated chloride solutions, linear dependence should also be maintained between concentrations of hydroxide ( $C_2$ ) and chloride ( $C_1$ ) in the catholyte:  $C_1 = C_8 - K_k C_2$  whereupon the dependence between the concentration, feeding the electrolyzer of chloride ( $C_8$ ) solution, and coefficient  $K_k$  is practically the same for all alkali metals. It is expressed by the equation  $K_k = 0.995 - 0.0355C_8$ . It was indicated that the maximum current efficiency during electrolysis of the saturated lithium chloride solution, as in the case of sodium and potassium, approaches 100% (99%); current efficiency should not drop noticeably to the lithium hydroxide solution saturation. During electrolysis of solutions of lithium chloride of moderate concentrations, a reduction in current efficiency is possible with considerable concentrations of hydroxide in the catholyte; however, this reduction in current efficiency should be less abrupt than in the case of sodium hydroxide and potassium hydroxide. Orig. art. has: 2 figures, 1 table.

ASSOCIATION: none

SUBMITTED: 13Dec61

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: CH

No. REF. SOV: 010

OTHER: 001

Card 2/2

SKLYARENKO, S.I.; SMIRNOV, I.V.; RYSEV, A.P.; SHEVTSOVA, N.S.

Production of cesium hydroxide by electrolysis of cesium  
chloride in an electrolyzer with a horizontal filtering  
diaphragm. Zhur.prikl. khim. 37 no. 5:1036-1041 My '64.  
(MIRA 17:7)

SKHARLAKO, S.I.; RESEN, A.G.; SMIRNOV, I.V.; CHUDINOV, T.T.

Electrolysis of an aqueous solution of a mixture of potassium  
and lithium chlorides with a moving mercury electrode. Zhur.  
prikl. khim. 38 no.4:849-855 Ap '65. (MIRA 18.6)

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH ORDERS									
<div style="float: left; width: 100px; height: 100px; border: 1px solid black; display: flex; align-items: center; justify-content: center; font-size: 2em;">C</div> <div style="float: right; width: 100px; height: 100px; border: 1px solid black; display: flex; align-items: center; justify-content: center; font-size: 2em;">18</div> <div style="clear: both;"></div> <p>Calcining chlorides of <del>potassium</del> <sup>sodium</sup>, S. I. Gayathinov and I. V. Smirnov. Russ. 55,735, March 31, 1944.</p> <p>Anhyd. chlorides <del>from</del> of oxychlorides, are obtained by heating a mixt. contg. at least two mols. of KCl per mol. of the chloride of the <del>respective</del> <sup>respective</sup></p>																													
<div style="display: flex; justify-content: space-between;"> <div> <p>ASAC-SEA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>1ST AND 2ND ORDERS</p> </div> <div> <p>3RD AND 4TH ORDERS</p> <p>2ND LETTER</p> </div> <div> <p>4TH AND 5TH ORDERS</p> <p>3RD LETTER</p> </div> </div>																													

1ST AND 3RD ORDERS
2ND AND 4TH ORDERS

COMMON ELEMENTS

COMMON

GROUPS

PROCESSES AND PROPERTIES INDEX

ca

Cement. I. V. Shukrov and B. V. Osin. Russ. 57, 602, June 30, 1940. "A cement is prepd. by mixing Ca-SO<sub>3</sub>·0.5H<sub>2</sub>O with dissolved Ca(OH)<sub>2</sub>."

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1ST AND 3RD ORDERS

2ND AND 4TH ORDERS

SMIRNOV, I.V.

Prigotovleniye V Stroitel'stve Molotoy Negashenoy (2 west)  
Preparation and Utilization of Slaked Quicklime For Building Purposes  
Moskva Izd-vo "Pravda" 1950

23p. Tables, Diagr's.

At head of Title: Vsesoyuznoye  
Obshchestvo po Rasprostraneniyu Poliyicheskikh I Nauchnykh Znaniy.

On new methods, Technology and employment of slaked quicklime.

1. SMIRNOV, I. V.
2. USSR (600)
4. Lime
7. Cooperation  
Nauka i shinz' no. 10, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.



1. SMIRNOV, I. V.
2. USSR (600)
4. Concrete Construction
7. Thoughts about concrete, Tekh. molod., 20, No. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

TOKAREV, F.V., izobretatel', Geroy Sotsialisticheskogo Truda; SMIRNOV, I.V., izobretatel' v oblasti stroymaterialov; POKROVSKIY, G.I., professor, do'ktor tekhnicheskikh nauk; SHIRKOV, I.P., novator stroitel'noy industrii; CHIKIREV, N.S., novator; KOTOVA, S.A., novator, brigadir pryadil'shchits; LOGIN, M.I., izobretatel', inzhener; SLIVOKHIN, F.P., ratsionalizator; MERKULOV, I.A., izobretatel', konstruktor dvigateley; KOSMATOV, N.V., izobretatel' v oblasti kino; KHLEBTSEVICH, Yu.S., izobretatel', kandidat tekhnicheskikh nauk; SHCHADILOV, V.I., ratsionalizator-naladchik.

"Inventor" has a proud ring to it! Tekh. mol. 25 no.3:1-3 Mr '57.  
(MIRA 10:6)

1. Deputat Verkhovnogo Soveta SSSR (for Shirkov). 2. Nachal'nik tsekha zavoda imeni Sergo Ordzhonikidze (for Chikirev). 3. Fabrika imeni Kalinina (for Kotova). 4. Termitnostrelochnyy zavod (for Login). 5. Zavod "Kauchuk" (for Slivochkin).

(Inventions)

AUTHOR: S. Arsenov, I.

29-58-6-7/19

TITLE: Cement From Local Raw Materials (Tsement iz mestnogo syr'ya)

PERIODICAL: Tekhnika Molodezhi, 1958, Vol 26, Nr 6,  
pp 12 - 13 (USSR)

ABSTRACT: Cement is called the "bread" of building industry. Especially the building contractors working in far-off and only to a small extent populated regions are hungry for cement. Modern cement industry which works with special raw material uses a very complicated technology. Great works with expensive plants are necessary for the production of cement. The necessary raw materials do not exist in this region. Already in 1825 Yegor Cheliyev had the method of production of "Martel" patented. This is a cement of slaked lime and common loam. This method was forgotten, which it did not deserve. Nowadays when the properties of unslaked lime are known and the new "hydration theory" worked out by B. V. Osin, Candidate of Technical Sciences, is used, the simple method of cement production by Cheliyev can be developed upon a new basis. Approximately 30 years ago the author of this article discovered new properties of lime, i.e., the hydration

Card 1/2

Cement From Local Raw Materials

29-58-6-7/19

hardening. This theory as well as the experience of Cheliyev have convinced of the fact that a simplified cement production is only possible if the fundamental processes in the production of cement clinker are separated into two parts. The first part is the burning of limestone in order to obtain lump lime (komovaya izvest'). The second part is the rapid sintering of the layer which consists of a mixture of loam and unslaked lime, in very simple sintering apparatus of small caliber. The principle of separated technology is already used successfully in the Karpov brick works in the town of Gorkiy and in the Domodedov lime works in Moscow. The fundamental scheme of the cement production is shown on the second page of the cover. The scheme of the physical-chemical transformation process of lime and loam into clinker cement is shown by a figure on page 13. There are 2 figures.

1. Cement--Production
2. Cement--Materials

Card 2/2

SMIRNOV, I. V.

"Preservation of the Sperm of Agricultural Animals by Means of Deep Freezing" (Review)

Sov. Zootekhnika, 1949, No 4, pp70-75

Letopis Zhurnal'nykh Statev, 1949, item # 25871

SMIRNOV, I. V.

25871

Sokhraneiii spermy sel'skokhozyactbinh zhivothykh posreostboiu glubokato okharhdema.  
(Prerat) Sovzootekhniiya, 1949, No. 4, s. 93-96.

SO: Letopis' No. 34

SMIRNOV, I. V.

"News about Anabiosis," Nauka I Zhizn', No. 11, 1949. Cand. Biol. Sci.

[? "New Developments in Anabiosis," ibid., p 33 - -W-18972, 28 Jul 1951 - in dossier]

SMIRNOV, I. V.

"Determination of Sugar in the Liver of Healthy, Sick and Killed Animals as an  
Auxiliary Method in the Appraisal of Meat Quality"

SO: Uchen. Zapiski. Kazansk Gos. Vet. In-ta im. Bauman. Vol 50, 1949, pp161-63

Ietopis' Zhurnal'nykh Statey, 1949, item #34938



SMIRNOV, I. V.

CA

11F

Quick-freezing semen of farm animals. I. V. Smirnov  
(Ukrainian Inst. for Research in Animal Husbandry,  
Kharkov). *Zhur. Obshchei Biol.* (J. Gen. Biol.) 11,  
185-97(1950).—Stability of the protoplasm of animal  
semen in the vitreous state is confirmed by tests at  $-78^{\circ}$ ,  
 $-183^{\circ}$ , and  $-196^{\circ}$ . Insemination of females with semen  
kept 2-32 days at these temps. showed 33-100% retention  
of initial capacity to produce normal young. The tests  
included rabbits, sheep, cattle, and horses. I. F. S.

MISSION, 1900

1. Handbook of the Fishes of the USSR.
2. Handbook of the Fishes of the USSR.
3. Handbook of the Fishes of the USSR.
4. Handbook of the Fishes of the USSR.
5. Handbook of the Fishes of the USSR.
6. Handbook of the Fishes of the USSR.
7. Handbook of the Fishes of the USSR.
8. Handbook of the Fishes of the USSR.
9. Handbook of the Fishes of the USSR.
10. Handbook of the Fishes of the USSR.

SMIRNOV, I. V.

Bees

Some new data on the sperm of drones. Pchelovodstvo 30, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, \_\_\_\_\_ June \_\_\_\_\_ 1953, Uncl.

Smirnov

Q-1

USSR/Farm Animals. General Problems

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 35600

Author : Smirnov I.V.

Inst : Not Given

Title : Technique of the Deep-Freezing of the Semen of Farm Animals

Orig Pub : Sb. tr. Khar'kovsk. zoetokhn. in-ta, 1956, 8, 45-50

Abstract : It is recommended to allow small packages with semen, made of thin aluminum foil, to stand for one minute of dry ice, and then to transfer them into liquid oxygen; this procedure increases the preservation of semen by 5-10%.

Card : 1/1

SMIRNOV, I.V., [~~Smyrnov, I.V.~~], kand.biol.nauk (Terezino, Kiyevskoy  
oblasti)

Artificial insemination of livestock. Nauka i zhyttia 8 no.10:  
38-40 '58. (MIRA 13:4)  
(Artificial insemination)

KLASSEN, Kh.I., kand. sel'skokhozyaystvennykh nauk.; MIKHNOVSKIY, D.K., kand.  
biol. nauk.; SMIRNOV, I.V., kand. biol. nauk

New methods and forms in breeding. Zhivotnovodstvo 20 no. 10:59-64  
0 '58. (MIRA 11:10)

(Artificial insemination)

KOZENKO, T.M., kand. sel'skokhozyaystvennykh nauk,; SMIRNOV, I.V., kand. biol.  
nauk

Artificial insemination of swine. Zhivotnovodstvo 20 no. 10:80-  
85 0 '58. (MIRA 11:10)

(Swine breeding)  
(Artificial insemination)

KLASSEN, Kh.I., kand.sel'skokhoz.nauk; SMIRNOV, I.V., kand.biolog.  
nauk

' Urgent problems in the work of stations for artificial insemination. Zhivotnovodstvo 21 no.10:15-23 0 '59.  
(MIRA 13:2)

1. Kiyevskaya opytnaya stantsiya zhivotnovodstva "Terexino".  
(Ukraine--Artificial insemination)



ZORIN, Ivan Gerasimovich [Zorin, I.H.]; SMIRNOV, Igor' Vasil'yevich  
[Smyrnov, I.V.]; EYSNER, Fedor Fedorovich [Eisner, F.F.]; MA-  
ZUR, V.M., red.; MANOYLO, Z.T. [Manoilo, Z.T.], tekhn. red.

[Artificial insemination of livestock together with breeding  
principles] Shtuchne osimeninnia sil'skohospodars'kykh tvaryn  
z osnovamy plemynnoi spravy. Kyiv, Vyd-vo Ukrain'skoi akade-  
mii sil'skohospodars'kykh nauk, 1960. 253 p. (MIRA 14:12)

1. Chlen-korrespondent Ukrain'skoy akademii sel'skokhozyaystven-  
nykh nauk (for Zorin).

(Artificial insemination) (Stock and stock breeding)

SMIRNOV, I.V., kand.biologicheskikh nauk

Practical and scientific significance of blood groups of farm  
animals. Zhivotnovodstvo 23 no.7:68-71 J1 '61. (MIRA 16:2)  
(Blood groups)  
(Artificial insemination)

SMIRNOV, I.V., kand.biolog.nauk; POSTAVNAYA, V.I., kand.biolog.nauk

New method for determining the resistance of semen. Zhivotnovodstvo  
24 no.5:70-71 My '62. (MIRA 16:10)

ANDRIYEVSKIY, Vasil'y Yakovlevich [Andriievs'kyi, V.IA.];  
SMIRNOV, Igor' Vasil'yevich [Smyrnov, I.V.];  
LIPSKA, V.K. [Lips'ka, V.K.], red.

[Veterinary obstetrics, gynecology, and artificial  
insemination] Veterinarne akusherstvo, ginekologiya i  
shtuchne osimeninnia. Kyiv, Urozhai, 1965. 415 p.  
(MIRA 19:1)

1. SMIRNOV, I.V.
2. USSR (600)
4. Rotation of Crops - Maritime Territory
7. Adopting crop rotation systems on collective farms of the Maritime Territory. Sov. agron  
10, no. 11, 1952

9. Monthly List of Russian Accessions, Library of Congress, February, 1953. Unclassified

SMIRNOV, I.V., red.

[Reclamation of new lands in the East; Eastern Siberia and the Far  
East] Osvoenie novykh zemel' na Vostoke, Vostochnaya Sibir' i Dal'niy  
Vostok. Moskva, Sel'khozgiz, 1957. 181 p. (MIRA 11:3)  
(Siberia, Eastern--Reclamation of land)  
(Soviet Far East--Reclamation of land)

SMIRNOV, Ivan Vasil'yevich; KUBASOV, G.M., red.; SAYTANIDI, L.D.,  
tekhn.red.

[Harvest seeds of wild forage plants] Sobiraite semena diko-  
rastushchikh kormovykh trav. Moskva, Izd-vo M-va sel'.khoz.  
RSFSR, 1960. 24 p. (MIRA 14:1)  
(Forage plants)

SMIRNOV, I.V.

Theoretical basis of the principle of cultivation of uni-  
cellular algae. Biofizika 8 no.1:90-100 '63. (MIRA 1748)



SMIRNOV, K.

Progressive methods in ship repairing. Rech. transp.  
21 no. 12:25-26 D '62. (MIRA 15:12)

1. Direktor Astrakhanskogo sudoremontnogo zavoda imeni  
Lenina.

(Ships--Maintenance and repair)

SMIRNOV, K.

Switching on luminescent lamps without the use of a starter.  
Pozh.delo 8 no.12:14-15 D '62. (MIRA 16:1)

1. Nachal'nik Ivanovskoy pozharo-ispytatel'noy stantsii.  
(Fluorescent lamps)

OREL, V., red.; BELOV, V., red.; GALKIN, S., red.; KRAMINOV, A.,  
red.; SMIRNOV, K., red.; SHOSTAKOVSKIY, V., red.; SILNEVA, N.,  
red.

[Virgin-land planet] Planeta Tselina. Moskva, Molodaia  
gvardiia, 1965. 157 p. (MIRA 18:4)

9.1300

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A005/A001

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 8, p. 320, # 21065

AUTHOR: Smirnov, K.A.

TITLE: Experimental Investigation of a Resonance Line Stretcher With  
Variable Coupling in a Rectangular Waveguide<sup>25</sup>

PERIODICAL: Tr. Leningr. elektrotekhn. in-ta svyazi, 1959, No. 2 (39), pp. 31-46

TEXT: The results are presented from an experimental investigation of resonance line stretchers at 10 cm wavelength. The author shows the possibility of practical realization of both the narrow-band and wide-band waveguide band-elimination filters, based on the application of resonance line stretchers. The designs of band-elimination filters are presented and their frequency characteristics are added, which were obtained experimentally. A simple method for measuring very small values of the travelling wave ratio in waveguide channels is suggested. (Part I see: RZhFiz, 1958, No. 12, # 28199).

Author's summary

Translator's note: This is the full translation of the original Russian abstract.

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